



# Texas Brine Company, LLC

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Belle Rose, LA 70341  
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March 19, 2013

Commissioner James H. Welsh  
P.O. Box 94275  
Baton Rouge, LA 70804

**RE: In response to State of Louisiana Department of Natural Resources Office of Conservation's Second Amendment to Declaration of Emergency and Directive**

Commissioner Welsh,

In response to the Second Amendment and Declaration of Emergency and Directive order issued by the Louisiana Department of Natural Resources (LDNR), Office of Conservation on September 25, 2012, Texas Brine Company, LLC (TPC) understands the seven items listed in the document.

In the above mentioned, TBC was specifically directed and ordered to perform certain tasks outlined in the above mentioned document. Below are the required responses, as directed.

1. TBC's counsel provided LDNR legal counsel with a response to Directives 1-3 on September 28, 2012.
2. TBC understands Directive 4, which is to provide all daily logs and field notes from all contractors conducting investigation into subsidence and natural gas bubbling. The Daily Action Summary and results for current information can be found in the Attachment section of this report.
3. TBC understands Directive 5, which directs TBC to immediately allow for split or share any sample taken on site related to Well 3A (Serial Number 974265), the cavern, other wells facilities or other site locations. The Daily Action Summary of today's collection can be found in Attachment section of this report.
4. TBC understands Directive 6, which directs TBC to immediately report the results (final and preliminary) of any tests, logs samples or data collection performed on Well 3A, the cavern, other wells, facilities or site locations that indicate a change in any previously known conditions related to the investigation of the subsidence or natural gas bubbling

events, and continue to report any such results. The Daily Action Summary and the Results related to this Directive can be found in Attachment section of this report.

5. TBC understands the Directive 7, which states that TBC will provide a daily summary of all tests, or logs performed or samples taken from Well 3A and the cavern as well as any results of those tests or logs, including preliminary as of September 25, 2012 and going forward. The Daily Summary and Results related to this Directive can be found in Attachment section of this report.

Please note that the drilling rig used for the Observation Well 3A has been removed and the site is being rigged down and returned to pre-drilling condition. As such, daily drilling reports for this well have ceased. Plans are being made for longer term potential gas venting/flaring requirements and possible hydrocarbon material recover from Well 3A.

In addition, previous daily summary reports issued to LDNR have included significant duplicate information as there is a fair amount of overlap in the information requested in each of the Directives included in the September 25, 2012 order. All requested information associated with the Directives issued in the September 25, 2012 order are included in the Attachment section of this report.

TBC believes that the submittal of this report satisfies the requirements of the Declaration of Emergency and Directive issued on September 25, 2012. As directed this report is submitted by email to [conservationorder@la.gov](mailto:conservationorder@la.gov), ref. "Emergency Declaration-Texas Brine Company LLC-9/25/2012.



Bruce E. Martin

Vice President, Operations

Texas Brine Company, LLC

## **Summary Table for Daily Events**

TBC Oxy Grand Bayou Data Management-Environmental									
Contractor	Responsibilities	Collected By		Date Collected	Delivered to Lab	Results from Lab	Laboratory	Method	Date to Agencies
Sage	Stationary Air Monitoring	Bijet Mukherjee - 08:04 - 09:40 Pete Hyatt IV (Code Red) - 07:00 -		3/18/2013	NA	NA	NA	AreaRAE Monitors	3/19/2013
	Residential Air Monitoring	No work performed		3/18/2013	NA	NA	NA	NA	NA
	Gas Seep Sampling	No work performed		3/18/2013	NA	NA	NA	NA	NA
	Well Gas Sampling	No work performed		3/18/2013	NA	NA	NA	NA	NA
	Indoor Air Monitoring	No work performed		3/18/2013	NA	NA	NA	NA	NA
Respec	Inclinometers/Tilt Meters	3/18/2013	No work conducted	No work conducted	NA	NA	NA	NA	NA
	InSAR Reflector Installations	3/18/2013	No work conducted	No work conducted	NA	NA	NA	NA	NA
	Subsidence Survey-Fenstermaker	3/18/2013	No work conducted	No work conducted	NA	NA	NA	NA	NA
	Shallow Geophone Installation	3/18/2013	No work conducted	No work conducted	NA	NA	NA	NA	NA
	Deep Geophone Installation	3/18/2013	No work conducted	No work conducted	NA	NA	NA	NA	NA
	Amendment #3, Directive #2	3/18/2013	No work conducted	No work conducted	NA	NA	NA	NA	NA
Miller	Weekly Stability Survey	No Work Performed		Mar. 18, 2013	NA	NA	NA	NA	NA
	Misc. Survey Work	No Work Performed		Mar. 18, 2013	NA	NA	NA	NA	NA
	Sinkhole Hydro/Perimeter Survey	No Work Performed		Mar. 18, 2013	NA	NA	NA	NA	NA
Pisani	Surface Water	NA		NA	NA	NA	NA	NA	NA
	Well Water	NA		NA	NA	NA	NA	NA	NA
	Geoprobe Wells	NA		NA	NA	NA	NA	NA	NA
<b>Grand Bayou Well 3A</b>									
Daily Operations at 3A		<u>Summary of Today's events</u>							
		Oxy 3A							
3/19/2013		7am							
		412.5	3/19/2013						
3/19/2013		Relief Well #1							
		See ORW-01 Flare Spreadsheet							

Laboratory  
Lab Contact

Laboratory  
Lab Contact

## **Attachments**

## **Daily Action Summary**

**March 18, 2013**

### **Stationary Air Monitoring**

- Bijet Mukherjee onsite from 08:04 to 09:40. Changed out the monitors between 08:24 and 09:22. Collected data from the monitoring database and forwarded to Eric Rucinski in the Baton Rouge office for processing.
- Pete Hyatt IV of Code Red (monitor sub-contractor) onsite from 07:00 to 17:00. Assisted in battery change outs and maintenance of the monitoring equipment.

### **Residential Air Monitoring**

- Not Scheduled

### **Gas Seep Sampling**

- Not Scheduled

### **Well Gas Sampling**

- Not Scheduled

### **Air Indoor Monitoring**

- Not Scheduled

Texas Brine - Belle Rose, Louisiana  
Hourly Air Monitoring Data

\*Time indicates start of time period (ex. 12:00:00 AM gives the time period 12:00:00 AM to 12:59:59 AM)

Date-Time *	South-most Pipeline Site					Middle-most Pipeline Site					North-most Pipeline Site					On Drill Rig Boom					Relief Well				
	ST-3					ST-2					ST-1					OG 3A-1					RW-1				
	CO (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	CO (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	CO (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	SO2 (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	CO (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)
03/18/2013 01:00:00 AM	0.0	<1.0	0.0	6.7	20.9	<1.0	<1.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	0.0	<1.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
03/18/2013 02:00:00 AM	0.0	<1.0	0.0	6.7	20.9	<1.0	<1.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	0.0	<1.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
03/18/2013 03:00:00 AM	0.0	<1.0	0.0	6.7	20.9	<1.0	<1.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	0.0	<1.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
03/18/2013 04:00:00 AM	0.0	<1.0	0.0	6.7	20.9	<1.0	<1.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	0.0	<1.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
03/18/2013 05:00:00 AM	0.0	<1.0	0.0	6.6	20.9	<1.0	<1.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	0.0	<1.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
03/18/2013 06:00:00 AM	0.0	<1.0	0.0	6.6	20.9	<1.0	<1.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	0.0	<1.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
03/18/2013 07:00:00 AM	0.0	<1.0	0.0	6.6	20.9	<1.0	<1.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	0.0	<1.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
03/18/2013 08:00:00 AM	0.0	<1.0	0.0	6.7	20.9	<1.0	<1.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	0.0	<1.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
03/18/2013 09:00:00 AM	<1.0	<1.0	<1.0	<1.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9
03/18/2013 10:00:00 AM	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9
03/18/2013 11:00:00 AM	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	<1.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	<1.0	<1.0	0.0	20.9
03/18/2013 12:00:00 PM	<1.0	0.0	<1.0	0.0	21.1	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9
03/18/2013 01:00:00 PM	<1.0	0.0	<1.0	0.0	21.3	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9
03/18/2013 02:00:00 PM	<1.0	0.0	<1.0	0.0	21.3	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9
03/18/2013 03:00:00 PM	<1.0	0.0	<1.0	0.0	21.3	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9
03/18/2013 04:00:00 PM	<1.0	0.0	<1.0	0.0	21.3	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9
03/18/2013 05:00:00 PM	<1.0	0.0	<1.0	0.0	21.3	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9
03/18/2013 06:00:00 PM	<1.0	0.0	<1.0	0.0	21.2	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9
03/18/2013 07:00:00 PM	<1.0	0.0	<1.0	0.0	21.2	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9
03/18/2013 08:00:00 PM	<1.0	0.0	<1.0	0.0	21.2	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9
03/18/2013 09:00:00 PM	0.0	0.0	<1.0	0.0	21.2	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9
03/18/2013 10:00:00 PM	<1.0	0.0	<1.0	0.0	21.1	0.0	0.0	0.0	0.0	20.9	0.0	3.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9
03/18/2013 11:00:00 PM	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	19.6	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9
03/19/2013 12:00:00 AM	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	5.9	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9

Notes:  
RTU-1, located at ST-1, recorded elevated VOC readings from approximately 10:45 PM on 3/18/2013 - 12:30 AM on 3/19/2013.

Texas Brine - Belle Rose, Louisiana  
Hourly Air Monitoring Data

\*Time indicates start of time period (ex. 12:00:00 AM gives the time period 12:00:00 AM to 12:59:59 AM)

Date-Time *	South-most Pipeline Site					Middle-most Pipeline Site					North-most Pipeline Site					On Drill Rig Boom					Relief Well				
	ST-3					ST-2					ST-1					OG 3A-1					RW-1				
	CO (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	CO (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	CO (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	SO2 (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	CO (ppm)	Non-Methane VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)
03/18/2013 05:00:00 AM	0.0	<1.0	0.0	6.6	20.9	<1.0	<1.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	0.0	<1.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
03/18/2013 06:00:00 AM	0.0	<1.0	0.0	6.6	20.9	<1.0	<1.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	0.0	<1.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
03/18/2013 07:00:00 AM	0.0	<1.0	0.0	6.6	20.9	<1.0	<1.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	0.0	<1.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
03/18/2013 08:00:00 AM	0.0	<1.0	0.0	6.7	20.9	<1.0	<1.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	0.0	<1.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9
03/18/2013 09:00:00 AM	<1.0	<1.0	<1.0	<1.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9
03/18/2013 10:00:00 AM	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9
03/18/2013 11:00:00 AM	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	<1.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	<1.0	<1.0	0.0	20.9
03/18/2013 12:00:00 PM	<1.0	0.0	<1.0	0.0	21.1	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9
03/18/2013 01:00:00 PM	<1.0	0.0	<1.0	0.0	21.3	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9
03/18/2013 02:00:00 PM	<1.0	0.0	<1.0	0.0	21.3	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9
03/18/2013 03:00:00 PM	<1.0	0.0	<1.0	0.0	21.3	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9
03/18/2013 04:00:00 PM	<1.0	0.0	<1.0	0.0	21.3	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9
03/18/2013 05:00:00 PM	<1.0	0.0	<1.0	0.0	21.3	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9
03/18/2013 06:00:00 PM	<1.0	0.0	<1.0	0.0	21.2	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9
03/18/2013 07:00:00 PM	<1.0	0.0	<1.0	0.0	21.2	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9
03/18/2013 08:00:00 PM	<1.0	0.0	<1.0	0.0	21.2	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9
03/18/2013 09:00:00 PM	0.0	0.0	<1.0	0.0	21.2	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9
03/18/2013 10:00:00 PM	<1.0	0.0	<1.0	0.0	21.1	0.0	0.0	0.0	0.0	20.9	0.0	3.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9
03/18/2013 11:00:00 PM	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	19.6	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9
03/19/2013 12:00:00 AM	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	5.9	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9
03/19/2013 01:00:00 AM	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	<1.0	0.0	20.9
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03/19/2013 03:00:00 AM	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9
03/19/2013 04:00:00 AM	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9
03/19/2013 05:00:00 AM	<1.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	0.0	0.0	<1.0	0.0	20.9	0.0	0.0	0.0	0.0	20.9	<1.0	0.0	0.0	0.0	20.9

Notes:  
RTU-1, located at ST-1, recorded elevated VOC readings from approximately 10:45 PM on 3/18/2013 - 12:30 AM on 3/19/2013.

# RESPEC Consulting & Services

Texas Brine, L.L.C.

Assumption Parish, Louisiana

Daily Field Report

Report By: David Gnage

Date: 3-18-13

Company: RESPEC

Work Order #:           ()

Personnel	Company	Job Title

**Time Onsite:** Start Time: NA End Time: NA

**Equipment Onsite:**

**Daily Activity:** No Field Work Conducted. RESPEC not on-site.

**Proposed Schedule:** No onsite work scheduled at this time.

Initials: DJG

## **ME&A Daily Action Summary**

March 18, 2013

### **Subsidence Survey:**

- No Work Done

### **Sinkhole Perimeter/Hydrographic Survey:**

- No Work Done

### **Support Sinkhole Cleanup**

- No Work Done

### **Misc. Survey Work**

- No Work Done

# Michael Pisani & Associates

Texas Brine, L.L.C.

Assumption Parish, Louisiana

## Daily Field Report

Report By: Patrick Ritchie

Date: 3/18/2013

Company: MP&A

Work Order # 80-05

Health and Safety Meeting  YES  NO

Weather: 73 F Overcast, W wind

Personnel	Company	Job Title
Charles Trahan	MP&A	Geologist
Patrick Ritchie	MP&A	Environmental Scientist

Site Activities: Start Time 9:30 End Time 13:30

**Equipment On-site:**

**Daily Activity:**  
Measure pressure and water level at TBC Geoprobe locations  
Work on sampling method for MRAA wells

Estimated time of completion:  
On-going

**Proposed schedule:**  
Conduct in-situ monitoring surface water transect and industrial water well locations 3/19/2013  
Measure water level for the industrial water wells 3/19/2013  
Measure pressure and water level at TBC Geoprobe locations 3/25/2013  
Collect laboratory samples from industrial water wells

Estimated time of completion:  
On-going

Initials: PMR